

## Chapter 222-34 WAC

### REFORESTATION

#### WAC

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*Note: Rules marked with an asterisk (\*) pertain to water quality protection and have been adopted or amended by the Forest Practices Board with agreement from the Department of Ecology per WAC 222-12-010.*

#### **WAC 222-34-010 Required reforestation-West of Cascades Summit.**

##### **(1) Reforestation - where required.**

- (a) Unless the harvest application indicates that the land will be converted to another use, or the lands are identified in WAC 222-34-050 as having a likelihood of conversion to urban uses, reforestation is required for forest lands harvested after January 1, 1975 in the following instances:
  - (i) Clearcutting; or
  - (ii) Partial cutting where 50 percent or more of the timber volume is removed within any 5-year period, unless the department determines that the live trees remaining will reasonably utilize the timber growing capacity of the soils.
- (b) Reforestation is not required where:
  - (i) Individual dead, dying, down or windthrown trees are salvaged; or
  - (ii) A tree or trees not constituting a merchantable stand are removed from lands in actual use for other purposes; for example, removal of individual trees from lands used for farming or grazing; or
  - (iii) Trees are removed under a thinning program reasonably expected to maximize the long-term production of commercial timber; or
  - (iv) A minimum of 190 vigorous, undamaged, well-distributed seedlings per acre of a commercial tree species are established on the area harvested and not more than 20 percent of the harvested area has from 150 to 190 seedlings per acre; or
  - (v) A minimum of 100 vigorous, undamaged, well-distributed saplings or merchantable trees per acre of a commercial species or combinations thereof, remain on the area harvested.

- (2) **Acceptable stocking.** Stocking levels are acceptable if a minimum of 190 well-distributed, vigorous, undamaged seedlings per acre of commercial tree species or such lesser number as the department determines will reasonably utilize the timber growing capacity of the site, have survived on the site at least 1 growing season. “Well-distributed” means that not more than 20 percent of the harvested area contains less than a minimum of 150 seedlings per acre as determined by the department.

- (3) **Competing vegetation.** Competing vegetation shall be controlled to the extent necessary to allow establishment, survival, and growth by commercial species.
- (4) **Artificial regeneration standards.**
- (a) **Satisfactory reforestation - clearcuts.** Satisfactory reforestation of a clearcut harvest occurs if within 3 years of completion of harvest, or a period of from 1 to 10 years as determined by the department in the case of a natural regeneration plan, the site is restocked to at least the acceptable stocking levels described in subsection (2) of this section: Provided, That regeneration failures from causes beyond the applicant's control will not result in violation of this section, but supplemental planting or reforestation may be required except in riparian management zones (see WAC 222-34-030(4)).
- The department may grant an extension of time for planting or seeding if suitable seedlings or seeds are unavailable, or if weather conditions or other circumstances beyond the forest land owner's control require delay in planting or seeding.
- (i) **Reforestation species.** Where the species proposed for reforestation after timber harvesting differs from the removed stand, the department may approve use of the proposed species where the reforestation plan reveals that the proposed species is preferable from any of the following standpoints:
- (A) Site data indicates better potential production for the proposed species than the existing species.
- (B) Control of forest insects or diseases.
- (C) Greater economic return.
- (ii) **Seedling or seeding standards.** Except as approved by the department to qualify as acceptable reforestation, the seedlings or seeds must be from an appropriate seed source zone. The department shall establish seed zones and guidelines for their use.
- (b) **Satisfactory reforestation - partial cuts.** Where reforestation is required in connection with a partial cut, the harvest application shall include a plan for stocking improvement. The plan shall be approved unless the department determines that it will not reasonably utilize the timber growing capacity of the site.
- (5) **Natural regeneration standards.** A natural regeneration plan may be approved as acceptable reforestation if:
- (a) A seed source of well formed trees of commercial tree species, capable of seed production is available.
- (b) The owner of the seed source agrees in writing not to harvest the seed source for the time period specified in the plan, or until issuance of a satisfactory reforestation inspection report.
- (c) The seed source must consist of:
- (i) Seed blocks of sizes and locations shown on the plan and satisfactory to the department; or
- (ii) An average of at least 8 individually marked, well-distributed, undamaged, vigorous, windfirm seed trees per acre of plantable area and no inadequately stocked area is more than 400 feet from the nearest seed tree; and
- (iii) Competing vegetation shall be controlled to the extent necessary to allow establishment, survival, and growth by commercial species.
- (6) **Any alternate plan** for natural reforestation may be approved if it provides a practical method of achieving acceptable stocking levels as described in subsection (2) of this section within a period of 1 to 10 years.

**WAC 222-34-020 Required reforestation-East of Cascades Summit.****(1) Reforestation - where required.**

- (a) Unless the harvest application indicates that the land will be converted to another use, or the lands are identified in WAC 222-34-050 as having a likelihood of conversion to urban use, reforestation is required for forest lands harvested after January 1, 1975 in the following instances:
  - (i) Clearcutting; or
  - (ii) Partial cutting where 50 percent or more of the timber volume is removed within any 5-year period, unless the department determines that the live trees remaining will reasonably utilize the timber growing capacity of the soils.
- (b) Reforestation is not required where:
  - (i) Individual dead, dying, down or windthrown trees are salvaged; or
  - (ii) A tree or trees not constituting a merchantable stand are removed from lands in actual use for other purposes, for example, removal of individual trees from lands used exclusively for farming or cultivated pasture; or
  - (iii) Trees are removed under a thinning program reasonably expected to maximize the long-term production of commercial timber; or
  - (iv) A minimum of 150 vigorous, undamaged, well-distributed seedlings per acre of a commercial tree species are established on the area harvested and not more than 20 percent of the harvested area has from 120 to 150 seedlings per acre; or
  - (v) A minimum of 100 vigorous, undamaged, well-distributed advanced regeneration, saplings or merchantable trees per acre of a commercial tree species or combinations thereof, remain on the area harvested.

- (2) **Acceptable stocking.** Stocking levels are acceptable if a minimum of 150 well-distributed, vigorous, undamaged seedlings per acre of commercial tree species or such lesser number as the department determines will reasonably utilize the timber growing capacity of the site have survived on the site at least 1 growing season. “Well-distributed” means that not more than 20 percent of the harvested area contains less than a minimum of 120 trees per acre as determined by the department.

- (3) **Competing vegetation.** Competing vegetation shall be controlled to the extent necessary to allow establishment survival and growth by commercial species.

**(4) Artificial regeneration standards.**

- (a) **Satisfactory reforestation - clearcuts.** Satisfactory reforestation of a clearcut harvest occurs if within 3 years of completion of harvest or a period of from 1 to 10 years as determined by the department in the case of a natural regeneration plan, the site is restocked to at least the acceptable stocking levels described in subsection (2) of this section: Provided, That regeneration failures from causes beyond the applicant’s control will not result in a violation of this section, but supplemental planting may be required except in riparian management zones (see WAC 222-34-030(4)).

**The department may grant an extension of time** for planting or seeding if suitable seedlings or seeds are unavailable, or if weather conditions or other circumstances beyond the forest landowner’s control require delay in planting or seeding.

- (i) **Reforestation species.** Where the species proposed for reforestation after timber harvesting differs from the removed stand, the department may approve

use of the proposed species where the reforestation plan reveals that the proposed species is preferable from any of the following standpoints:

- (A) Site data indicates better potential production for the proposed species than the existing species.
- (B) Control of forest insects or diseases.
- (C) Greater economic return.
- (ii) **Seedling and seed standards.** Except as approved by the department to qualify as acceptable reforestation, the seedlings and seed must be from an appropriate seed source zone. The department shall establish seed zones and guidelines for their use.
- (b) **Satisfactory reforestation - partial cuts.** Partial cuts not meeting the specifications of subsection (1)(b)(iv) or (v) of this section shall have a seed source as required in subsection (5)(c)(ii) of this section.
- (5) **Natural regeneration standards.** A natural regeneration plan may be approved by the department as acceptable reforestation if:
  - (a) A seed source of well-formed, vigorous trees of commercial tree species capable of seed production is available.
  - (b) The owner of the seed source agrees in writing not to harvest the seed source for the time period specified in the plan or until issuance of a satisfactory reforestation inspection report.
  - (c) The seed source consists of one of the following, or combinations thereof:
    - (i) Seed blocks which total a minimum of 5 percent of the area of each 40 acre subdivision or portion thereof harvested: Provided, That the seed block should be reasonably windfirm, at least 1/2 acre in size, and reserved in locations shown on the plan and approved by the department; or
    - (ii) A minimum of 4 undamaged seed trees per acre, well distributed over each 40 acre subdivision or portion thereof harvested: Provided, That the distance from seed trees of harvested areas that are not adequately stocked should not be more than 200 feet. Seed trees shall be of commercial tree species, vigorous and of seed-bearing age and size.
- (6) **Any alternate plan** for natural reforestation may be approved if it provides a practical method of achieving acceptable stocking levels as described in subsection (2) of this section within a period of 1 to 10 years.

#### **WAC 222-34-030 Reforestation--Plans--Reports--Inspections.**

- (1) **Reforestation plans.** Reforestation plans must be submitted with the application or notification except where no reforestation is required. The department shall designate difficult regeneration areas utilizing silvicultural information. When a forest practice is proposed for such an area, the department may require additional information regarding harvest systems and post harvest site preparation, as well as regeneration. The department shall approve the reforestation plan for difficult regeneration areas if it determines that such a plan will achieve acceptable stocking according to WAC 222-34-010 and 222-34-020.
- (2) **Reforestation reports.** The landowner, forest landowner, or his/her designee shall file a report with the department either at the time of completion of planting or reforestation or at the end of the normal planting season. When artificial seeding is used the report shall be filed 2 growing seasons after seeding.
- (3) **The reports in subsection (2) of this section must contain at least the following:**
  - (a) The original forest practice application or notification number.

- (b) Species reforested, planted, or seeded.
- (c) Age of stock planted or seed source zone.
- (d) Description of actual area reforested, planted, or seeded.
- (4) **Inspection; supplemental planting or reforestation directives.**
  - (a) Within 12 months after a reforestation report is received, the department shall inspect the reforested lands. The department shall issue written notice to the landowner, forest landowner, or his/her designee stating whether supplemental planting or reforestation or further inspection is required within 30 days after the deadline for inspection or the reforestation shall be deemed satisfactory.
  - (b) If the inspection shows that acceptable stocking levels have not been achieved, the department shall direct the forest landowner to perform supplemental planting in accordance with the planting standards of WAC 222-34-010 (3) and (4)(a)(ii), 222-34-020 (3) and (4)(a)(ii): Provided, That:
    - (i) In lieu of such supplemental planting, the department and the forest landowner may agree on a supplemental reforestation plan.
    - (ii) Supplemental planting or reforestation shall not be required where in the opinion of the department planting or reforestation is not feasible due to rocky ground, dry conditions, excessively high water table or other adverse site factors and the department determines that there is little probability of significantly increasing the stocking level.
    - (iii) Where supplemental planting or reforestation has been required by the department, the landowner, forest landowner, or his/her designee shall file a report of supplemental planting or reforestation upon completion.
    - (iv) Except where stocking improvement is necessary to protect public resources and is feasible, further supplementary planting shall not be required where acceptable stocking levels have not been achieved after two properly performed supplemental plantings.
  - (c) Within 12 months after a supplemental planting or reforestation report is received, the department shall inspect the reforested lands.
  - (d) **Evidence of compliance.** The department shall within 30 days after the deadline for inspection or reinspection and when requested by the forest landowner confirm in writing whether acceptable stocking levels have been achieved, provided field conditions do not prevent the department from properly evaluating the reforestation.
  - (e) Where a natural regeneration plan has been approved by the department, the department may allow up to 10 years to achieve acceptable stocking levels.

**WAC 222-34-040 Site preparation and rehabilitation.**

- \*(1) **Heavy equipment.** Heavy equipment shall not be used in connection with site preparation or rehabilitation work:
  - (a) When, because of soil moisture conditions or the type of soils, undue compaction or unnecessary damage to soil productivity would occur or erosion would result in damage to water quality; or
  - (b) Within riparian management zones, Type A and B Wetlands, wetland management zones, or within equipment limitation zones of Type Np and Ns Waters on slopes of 30 percent or less. On slopes greater than 30 percent heavy equipment shall not operate within 50 feet of Type S through Ns Waters unless a site specific plan has been approved by the department.



- \* (2) **Surface water drainage.** Where site preparation or rehabilitation involves contouring or terracing of slopes, drainage ditches, or similar work:
  - (a) The gradient of ditches or other artificial water courses in erodible soils shall not cause significant stream, lake, pond, or wetland siltation.
  - (b) Ditches and other artificial water courses shall not discharge onto any road, landing or fill.
  - (c) Ditches and other artificial water courses shall not be constructed to discharge onto the property of other parties without their consent.
- \* (3) **Stream channel realignment.** Where work involves deepening, widening, straightening or relocating the channel; or bulkheading, riprapping or otherwise stabilizing the banks of a Type S or F Water, a hydraulic project approval is always required, and the work shall be done only:
  - (a) After consultation with any party having an appropriation permit or registered right to appropriate waters from the affected stream segment in cases of streams used for domestic water supplies.
  - (b) Where no significant adverse effects on either the peak or minimum water levels or flows downstream can be expected.
  - (c) In a manner not expected to result in long-term damage to public resources or to adjacent or downstream property.

(NOTE: Other laws and rules and/or permit requirements may apply. See chapter 222-50 WAC.)

**WAC 222-34-050 Urban and other lands exempted from the reforestation requirements.**

- (1) **Those lands which** an applicant has declared are to be converted to a nonforest use and are in fact converted within 3 years of completion of harvest.
- (2) **Those lands the** department determines should be exempted in whole or in part where the forest land has the likelihood of future conversion as defined in WAC 222-16-060. The applicant is encouraged to propose an alternate plan for reforestation on these lands.
- (3) **Utility rights of way.** Reforestation is not required for initial clearing or reclearing of utility rights of way in actual use for utility purposes or scheduled for construction of utility facilities within 10 years from the date of completion of harvest, provided that if the scheduled facility is not completed, the area shall be reforested within 1 year.
- (4) **Public lands.** Reforestation is not required on the following lands, unless required by regulation of the agency owning or acquiring the lands:
  - (a) Lands owned in fee by a public agency which has budgeted for construction within 10 years a specific project inconsistent with commercial timber production.
  - (b) Lands being acquired by public agency for construction within 10 years of a project inconsistent with timber production, if at the time of completion of harvest the public agency has entered into a binding contract for the purchase of the lands or initiated legal proceedings for the condemnation of the lands.